

308 Building/2A
March 14, 2003



Document Processing Desk - 6(a)(2)
Office of Pesticide Programs - 7504C
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460-0001

RE: FIFRA § 6(a)(2) Report
Vikane* Gas Fumigant
EPA Registration Number: 62719-4
Active Ingredient: Sulfuryl Fluoride
CAS Registry Number: 002699-79-8
DERBI Number: 104598
State: FL
Severity Category: H-A

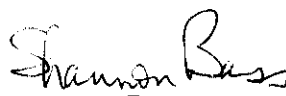
Dow AgroSciences submits the following information in response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2). However, Dow AgroSciences has not concluded that this information regards an "unreasonable adverse effect on the environment" or that it is reportable under FIFRA § 6(a)(2).

Dow AgroSciences received the enclosed autopsy report for an incident originally reported to the Agency on January 17, 2002 with supplemental reports submitted on March 23, 2002, May 13, 2002 and February 21, 2003.

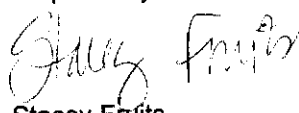
Updates IO13764-001
" IO12866-001

If you wish to discuss this matter further, please call us.

Regards,


Shannon Bass
EH&S Global Product Leader
(317) 337-4983

Prepared by:


Stacey Fruits
Product Stewardship Administrator
(317) 337-4577

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Vikane* Gas Fumigant
EPA Registration Number: 62719-4
Active Ingredient: Sulfuryl Fluoride
CAS Registry Number: 002699-79-8
DERBI Number: 129254
State: CA
Severity Category: H-C

Dow AgroSciences submits the following information in response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2). However, Dow AgroSciences has not concluded that this information regards an "unreasonable adverse effect on the environment" or that it is reportable under FIFRA § 6(a)(2).

Dow AgroSciences received the enclosed information regarding alleged human exposure.

It is important to note that the Vikane Gas Fumigant label requires the introduction of chloropicrin to the structure prior to fumigation at a rate of one ounce per 10,000-15,000 feet (17-25 ppm) to serve as a warning agent. This warning agent causes smarting of eyes, tearing, throat and nose irritation, and a disagreeable pungent odor at very low concentrations (ca. 0.3 ppm).

The Vikane Gas Fumigant label states the following: "When fumigating, observe local, state and federal rules and regulations including such things as use of chloropicrin, clearing devices, positive-pressure self contained breathing apparatus, security requirements, and placement of warning signs:... Extremely Hazardous Liquid and Vapor Under Pressure, Inhalation of Vapors may be Fatal." Under the "Preparation for Fumigation" section of the label, the use directions for structural fumigation state "Remove from the structure to be fumigated all persons, domestic animals, pets - including fish and desirable growing plants." Also, under the Aeration and Reentry section of the label, use directions state "... treated area must be aerated until the level of sulfuryl fluoride is 5 ppm or less, as measured by a detection device with sufficient sensitivity such as an INTERSCAN or MIRAN gas analyzer." Within this section of the label it further states "Do not reoccupy fumigation site, i.e. building, ship, vehicle or chamber, nor move vehicle until aeration is complete."

If you wish to discuss this matter further, please call us.

Regards,

A handwritten signature in cursive script that reads "Shannon Bass".

Shannon Bass
EH&S Global Product Leader
(317) 337-4983

Prepared by:

A handwritten signature in cursive script that reads "Stacey Fruits".

Stacey Fruits
Product Stewardship Administrator
(317) 337-4577

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Voluntary Industry Reporting Form for 6(a)(2) Adverse Effects Incident Information

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 1 of 3

Row 1	Reporter Name	Submission date.	Contact person (if different than reporter)	Internal ID 1-7320454
Administrative Data	Address		Address	
	Terminex Redwood City California			
	Phone # (800) 452-9081		Phone #	
	Incident Status: New	Location and date of incident Redwood City California 1/9/03	Date registrant became aware of incident. 2/13/03	Was incident part of larger study? No
Row 2	EPA Registration # (Product 1)	EPA Registration # (Product 2)	EPA Registration # (Product 3)	
Pesticide(s) Involved	62719-4			
	A.I. (s)	A.I. (s)	A.I. (s)	
	Sulfuryl Fluoride			
	Product 1 name	Product 2 Name	Product 3 Name	
	Vikane			
	Exposed to concentrate prior to dilution? No	Exposed to concentrate prior to dilution?	Exposed to concentrate prior to dilution?	
	Formulation	Formulation	Formulation	
Row 3	Evidence label directions were not followed? No	Incident site: (examples include home, yard, school, industrial, nursery/greenhouse, surface water, commercial turf, building/office, forest/ woods, agricultural (specify crop) right-of-way (rail, utility, highway)).	Situation (act of using product): (examples include mixing/loading, reentry, application, transportation, repair/ maintenance of application equipment, manufacturing/ formulating).	
Incident Circumstances	Intentional misuse? No	Own Residence	Re-entry	
	Applicator certified PCO? Not applicable			
	How exposed: (examples include direct contact with treated surface, ingestion, spill, drift, runoff)			
	See Incident Description			

DERBI: 129254 SC HC
 Report: Yes ☒ No ☐
 If no, why: _____
 Date: 2/1/03

Brief description of incident circumstances.

2/13/03 2:15:35 PM epa reg 62719-4

man is [REDACTED]

Hx: customer had house fumigation 17, at least 24 hrs ventilation before 1st re-entry, over 65yom with known sulfa allergy re-entered and broke out in hives that day. Out of home last month on vacation, went back 2 days ago and while moving boxes in garage (also tented) broke out in hives again. HCF/MD tx unknown to caller. Man's MD told him sulfa in product causing sxs. Caller wants to know if this is possible. No sxs that would suggest chloropicrin remaining, but house never has been re-check to make sure vikane gone.

Disc: would not expect vikane gas to be present at all (though would rec re-check) in case described so typically would not expect any exposure to sulfa product to have occurred, but would not take much sulfa contact to potentially cause sxs if this is known allergy to man. Will consult CL to find out if any sulfa component could be left behind/ potentially contacted. Cb/have MD/man cb prn, gave case#. Consulted SB/ will research. Notified CL JG.

2/14/03 2:39:01 PM Left message for Mr. Keef to call me back to discuss further.

Personal privacy

Voluntary Industry Reporting Form for 6(a)(2) Incident Information Involving Humans

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 3 of 3

Demographic information: Age: <i>Unknown Senior (> 65)</i> Sex: <i>Female</i> Occupation (if relevant)	Exposure route: <i>Unknown</i>	Was adverse effect result of suicide/homicide or attempted suicide/homicide? <i>No</i>	Was protective clothing worn (specify)? <i>Not applicable</i>
If female, pregnant? <i>DNQ</i>	Was exposure occupational? <i>No</i> If yes, days lost due to illness:	Time between exposure and onset of symptoms: <i>See Symptoms</i>	
Type of medical care sought: (examples include none, clinic, hospital emergency department, private physician, PCC, hospital inpatient). <i>HCF</i>	List signs/symptoms/adverse effects <i>Hives/Welts - 6 hrs or less ,</i>		If lab tests were performed, list test names and results (If available, submit reports)
Exposure data: Amount of pesticide: Exposure duration: Weight:			
Human severity category: <i>HC</i>			

This box can be used to provide any explanatory or qualifying information surrounding the incident. (add additional pages if necessary)

There are many potential causes for an apparent allergic reaction of this nature. Vikane does not contain ingredients that contact the arylamine group found in sulfonamide antibiotics believed to be responsible for cause allergic reactions to sulfa antibiotics.

Internal ID #
1-7320454

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RE: FIFRA § 6(a)(2) Report
Vikane* Gas Fumigant
EPA Registration Number: 62719-4
Active Ingredient: Sulfuryl Fluoride
CAS Registry Number: 002699-79-8
DERBI Number: 129263
State: CA
Severity Category: H-C

Dow AgroSciences submits the following information in response to its understanding of the U.S. Environmental Protection Agency's interpretation of FIFRA § 6(a)(2). However, Dow AgroSciences has not concluded that this information regards an "unreasonable adverse effect on the environment" or that it is reportable under FIFRA § 6(a)(2).

Dow AgroSciences received the enclosed information regarding alleged human exposure.

It is important to note that the Vikane Gas Fumigant label requires the introduction of chloropicrin to the structure prior to fumigation at a rate of one ounce per 10,000-15,000 feet (17-25 ppm) to serve as a warning agent. This warning agent causes smarting of eyes, tearing, throat and nose irritation, and a disagreeable pungent odor at very low concentrations (ca. 0.3 ppm).

The Vikane Gas Fumigant label states the following: "When fumigating, observe local, state and federal rules and regulations including such things as use of chloropicrin, clearing devices, positive-pressure self contained breathing apparatus, security requirements, and placement of warning signs:... Extremely Hazardous Liquid and Vapor Under Pressure, Inhalation of Vapors may be Fatal." Under the "Preparation for Fumigation" section of the label, the use directions for structural fumigation state "Remove from the structure to be fumigated all persons, domestic animals, pets - including fish and desirable growing plants." Also, under the Aeration and Reentry section of the label, use directions state "... treated area must be aerated until the level of sulfuryl fluoride is 5 ppm or less, as measured by a detection device with sufficient sensitivity such as an INTERSCAN or MIRAN gas analyzer." Within this section of the label it further states "Do not reoccupy fumigation site, i.e. building, ship, vehicle or chamber, nor move vehicle until aeration is complete."

If you wish to discuss this matter further, please call us.

Regards,

A handwritten signature in cursive script, appearing to read "Shannon Bass".

Shannon Bass
EH&S Global Product Leader
(317) 337-4983

Prepared by:

A handwritten signature in cursive script, appearing to read "Stacey Fruits".

Stacey Fruits
Product Stewardship Administrator
(317) 337-4577

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Voluntary Industry Reporting Form for 6(a)(2) Adverse Effects Incident Information

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 1 of 3

Row 1	Reporter Name	Submission date.	Contact person (if different than reporter)	Internal ID 1-7464824
Administrative Data	Mike Cole			
	Address ALGON Ext Co Inc El Cajon California 92021		Address	
	Phone # (800) 439-4284		Phone #	
	Incident Status: New	Location and date of incident El Cajon California 2/15/03	Date registrant became aware of incident. 2/28/03	Was incident part of larger study? No
Row 2	EPA Registration # (Product 1) 62719-4	EPA Registration # (Product 2)	EPA Registration # (Product 3)	
Pesticide(s) Involved	A.I. (s) Sulfuryl Fluoride	A.I. (s)	A.I. (s)	
	Product 1 name Vikane	Product 2 Name	Product 3 Name	
	Exposed to concentrate prior to dilution? No	Exposed to concentrate prior to dilution?	Exposed to concentrate prior to dilution?	
	Formulation	Formulation	Formulation	
	Row 3	Evidence label directions were not followed? No Intentional misuse? No	Incident site: (examples include home, yard, school, industrial, nursery/greenhouse, surface water, commercial turf, building/office, forest/ woods, agricultural (specify crop) right-of-way (rail, utility, highway)). Workplace	Situation (act of using product): (examples include mixing/loading, reentry, application, transportation, repair/ maintenance of application equipment, manufacturing/ formulating). See Description Notes
Incident Circumstances	Applicator certified PCO? Not applicable			
	How exposed: (examples include direct contact with treated surface, ingestion, spill, drift, runoff) See Incident Description			

DERBI: 129263 SC HT
Report: Yes ☒ No ☐
If no, why: _____
Date: 3/10/03

Brief description of incident circumstances.

2/28/03 10:18:02 AM HX: Caller is a PCO who states that an employee experienced a seizure on 2/15 while in vicinity of Vikane tenting. He was not in product application area, nor was he near the extraction tubing as it was ventilating the treated home to prepare for tent removal. He was outside several yards from the tented dwelling and the extraction tubing when he collapsed.

Apparently, the worker lost consciousness for about 3 min., and had some foam in the mouth, though unclear whether convulsing was observed. The day was warm, but seasonally appropriate. Appropriate workup, including CT, was performed. All tests were negative for evidence of seizure predisposition or sequelae. The employee has since been in good health after his initial recovery.

Apparently, it was intimated that the cause of the seizures must have been the (Product). This was stated in the context that no other cause was evident. Caller states that worker has performed hundreds of applications in the past 6 months he has been employed without incident. Caller wants to know whether there is a possible relationship between events.

REC: Not a characteristic response under circumstances described.

Would consider seeking second opinion if this is the actual diagnosis rendered.

Case # provided. Notified CL/ JG. Discussed with Clin Tox.

3/3/03 3:14:32 PM [REDACTED] called wondering if there are any long-term effects he needs to worry about, or whether there is any test that can be done to determine if he was exposed.

He reports that 20 minutes into the process of removing structural fumigation system (he was responsible for taking off sandbags outside the structure) he experienced blurred and spotted vision, then lost consciousness was witnessed convulsing on ground for 5 min blood coming out of mouth from biting on tongue. He was immediately taken to HCF by EMS after 911 was called. He regained consciousness in the ambulance.

He at no point displayed evidence of mucosal irritation of eyes, nasal passages, and upper respiratory tree which would normally be expected if both Vikane and chloropicrin were introduced into the dwelling.

His initial hospital work-up which including numerous laboratory tests and a CT exam did not reveal any causes.

He is in the process of filing a workman's comp claim.

REC: Explained that given the circumstances provided by both he and Mike Cole, there does not appear to be a possibility that he was exposed to excessive quantities of Vikane. Would be very interested in knowing what his serum calcium (if measured) was when he came to the hospital. Typically, excessive sulfuric fluoride exposure would produce a dramatic drop in measurable serum calcium

Personal privacy

Voluntary Industry Reporting Form for 6(a)(2) Incident Information Involving Humans

Provide all known, required information. If required data field information is unknown, designate as such in appropriate area. Page# 3 of 3

Demographic information: Age: 22 Sex: <i>Male</i> Occupation (if relevant)	Exposure route: <i>Unknown</i>	Was adverse effect result of suicide/homicide or attempted suicide/homicide? <i>No</i>	Was protective clothing worn (specify)? <i>Not applicable</i>
If female, pregnant? <i>DNQ</i>	Was exposure occupational? <i>Yes</i> If yes, days lost due to illness: <i>0</i>	Time between exposure and onset of symptoms: <i>See Symptoms</i>	
Type of medical care sought: (examples include none, clinic, hospital emergency department, private physician, PCC, hospital inpatient). <i>On-site</i>	List signs/symptoms/adverse effects <i>Seizure (single) - Unable to determine ,</i>		If lab tests were performed, list test names and results (If available, submit reports)
Exposure data: Amount of pesticide: Exposure duration: Weight:			
Human severity category: <i>HC</i>			

This box can be used to provide any explanatory or qualifying information surrounding the incident. (add additional pages if necessary)

Since patient was external to the dwelling that had been fumigated, and was not in close proximity to extraction tubing, it is unlikely he would have been exposed to appreciable quantities of Vikane. Also, patient did not experience any upper respiratory irritation or mucosal irritation which would have been expected if exposure to Vikane/Chloropicrin mixture had occurred.

Internal ID #
1-7464824

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RE: FIFRA § 6(a)(2) Report
Vikane* Gas Fumigant
EPA Registration Number: 62719-4
Active Ingredient: Sulfuryl Fluoride
CAS Registry Number: 002699-79-8
DERBI Number: 129265
State: FL
Severity Category: H-B

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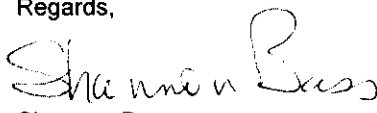
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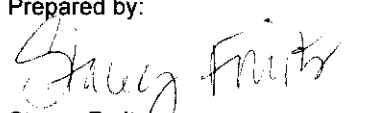
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If you wish to discuss this matter further, please call us.

Regards,


Shannon Bass
EH&S Global Product Leader
(317) 337-4983

Prepared by:


Stacey Fruits
Product Stewardship Administrator
(317) 337-4577

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Personal privacy

Reportedly, Pestguard Termite and Pest Control fumigated a residence where [REDACTED] was employed as a domestic servant. Allegedly, after the PCO cleared the home, she entered to begin work. She claims she began to experience symptoms and was admitted to a hospital facility.

23

LENGTH OF TIME FROM
EXPOSURE TO SYMPTOMS

Not indicated

SYMPTOMS REPORTED

Pain and suffering and loss of ability to enjoy life

RESULTING DIAGNOSIS

No medical records available at this time

TYPE OF MEDICAL CARE FACILITY

Hospital

ADDITIONAL INFORMATION

None at this time.

CORRELATION OF ALLEGED EXPOSURE TO PRODUCT

None at this time.

COUNTER INDICATION OF CORRELATION OF ALLEGED EXPOSURE

None at this time.